

at the same time the suckerless region became slightly depressed, forming a broad furrow which, becoming deeper, soon gave the body a reniform appearance. On the surface of this groove there appeared some approximated striæ, which, under a high power, were resolved into regular rows of little points or mamillæ, which increased rapidly, becoming elongated into short rigid points, not much thinner than the suckers. The latter continued to disappear more and more in the body. The furrowed region gradually increased on both sides until it formed a girdle round the body; and the points or mamillæ of this belt, becoming more and more elongated and slender, formed long and thin vibratile cilia which began to oscillate gently. The suckers had then almost entirely disappeared. The body then became elongated pretty rapidly, in such a fashion that the region on which the first rudiments of vibratile cilia appeared was at one of its extremities. This the author calls the *anterior* end. The body was at the same time depressed in a direction vertical to the plane of the ciliated belt, thus acquiring a more or less regular elongated form, slightly flattened, and ciliated only on its narrow periphery, the broad surfaces being quite destitute of cilia. The movements of the vibratile cilia at the same time became more distinct and caused some slight oscillation of the body. Lastly, the suckers retired completely within the body, the cilia vibrated more and more strongly, the elongation of the body was completed, and the *Podophrya* moved through the water turning upon itself, but with the *anterior* extremity always in front. In the case of stalked individuals the body was detached by a few feeble shocks or by turning two or three times upon itself. All these transformations occupied only half an hour.

The period of activity varies in length in different individuals. In becoming again immobile the *Podophrya* passes in inverse order through the stages above described: the suckers first appear; the body shortens and becomes broader; the vibratile cilia are retracted gradually; the body is gradually rounded, and in about twenty minutes resumes its globular form with its surface covered with long suckers. The same individuals were observed to pass several times through the whole series of metamorphoses. The author concludes that *Podophrya fixa* does not suit its name, as it is the most vagabond of known Acinetina; he regards it as an intermediate type uniting the Infusoria Suctoria to the true Infusoria Ciliata.—*Comptes Rendus*, November 13, 1876, p. 910.

Heiia villosa, Draparnaud.

Mrs. David Robertson, of Glasgow, found four living specimens of this land shell, in August 1873, on the moors near Cardiff, Glamorganshire, while searching for Ostracoda in the ditches. It is an addition to our Mollusca. *H. villosa* inhabits Germany, the east of France, and Switzerland; and it often occurs at considerable heights above the level of the sea. The variety *alpestris* or *alpicola* of *H. arbustorum* has the same difference of habitat: this usually is an

alpine mollusk ; but it also lives on the banks of the river Lea, near Broxbourne, in Hertfordshire ; and the Rev. T. Wiltshire found a specimen in my grounds at Ware Priory.—J. GWYN JEFFREYS.

On a new Species of Naultinus.

At the Meeting of the Wellington Philosophical Society on Nov. 11, 1876, the President, Dr. Buller, C.M.G., read the description of a new lizard of the genus *Naultinus*, and exhibited water-colour drawings of the adult and young, taken from specimens brought over from Nelson, and presented to him by Mr. Arthur Atkinson. The new lizard, for which the author proposed the name of *Naultinus pulcherrimus*, is beautifully marked in green and brown, the latter colour predominating. The green, which is very bright, is displayed in large diamond-shaped spots, arranged symmetrically on both sides of the spine, down the whole course of the back ; the underparts are pale silvery brown ; and on each side of the body there is a series of detached spots of white margined with green. The young of this species is of a bright pea-green colour, varied with transverse bands of paler green, and marked irregularly with minute specks of reddish brown. The author referred to the extreme variability of colour in *Naultinus elegans*, but pointed out that the present species (of which several other examples have been obtained) is distinguished by an orange-coloured mouth and tongue, these parts being always blue in the other. Apart from the general superficial colouring, which is very pronounced, he considered this a good specific character. He concluded with a general review of the genus *Naultinus* in New Zealand, in the course of which he mentioned that a large flat-headed species had been brought from The Brothers, where it formed the staple food of the tuatara. Both Dr. Hector and himself had come independently to the conclusion that this form was distinct from the well-known *N. pacificus* ; but as Dr. Günther, the greatest living authority on the subject, had pronounced against it, there could be no doubt that it was merely a local form of the latter.

Dr. Hector said he quite agreed with the President that the orange-coloured tongue separated this lizard as a species from *Naultinus elegans* ; otherwise it might have been taken as a variety of that form with the colours and markings greatly exaggerated. With regard to this large flat-headed species mentioned by Dr. Buller, he might state that he took specimens with him to England and submitted them to Dr. Günther. The type of Gray's *N. pacificus* in the British Museum was produced, and this was exactly the same ; from which it would appear that our common tree-lizard is the aberrant form, and the island one the true *N. pacificus*. Whether these differences were considered of specific importance or not, he deemed it of the highest interest that descriptions should be obtained of every known variety.